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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,134	02/28/2002	Dana Le	12587-018001	4392

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EXAMINER	
CHANG, YEAN HSI	

ART UNIT	PAPER NUMBER
2835	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/087,134	LE ET AL.	
	Examiner	Art Unit	
	Yean-Hsi Chang	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. In view of the BRIEF ON APPEAL filed on Feb. 18, 2005, PROSECUTION IS HEREBY REOPENED. Office action set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Objections

2. Claim 4 is objected to because of the following informalities: The "the audio-only user interface" lacks antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites "wherein the user interface further includes a video display" which is in contradiction with "a user interface having an audio-only mode of operation" recited in claim 1 from which it depends.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 7 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Kishida et al. (US 2002/0015008 A1).

Kishida teaches a wearable computer system (figs. 1 and 2) comprising: a computer unit (1, fig. 2B) wearable by a user, a user interface (25 and 26) having at least an audio-only mode of operation, comprising: an audio receiver (25) wearable by

the user and connectable to the computer unit (shown in fig. 2B), a speaker (26) adapted to be worn by the user and connectable to the computer unit (shown in fig. 2B) (claim 1); an image recorder (602, fig. 15) adapted to be worn by the user and connectable to the computer unit such that the image recorder may capture an image and forward the image to the computer unit for storage (see page 5, paragraph [0075]) (claim 7); wherein the user display further includes a video display (100, fig. 2B) (claim 9).

7. Claims 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kishida et al.

Kishida teaches a wearable computer system (figs. 1-2) comprising: a first audio receiver (25) wearable by a user, a computer unit (1) comprising: a circuitry (414, fig. 7) that receives and digitizes the electrical signal from the user, a processor (11), a computer memory (12) having instructions stored thereon (see [0034]) that, when executed by the processor, perform the following operations: processes the digitized signals and recognizes spoken words therein, determines whether the recognized spoken words constitute a predetermined natural voice command (see [0045]) that blends with the natural phrases and terminology commonly spoken by the user (the microphone may not be removed when not giving a command), and responds to the predetermined natural voice commands from the user by prompting the processor to execute a predetermined function (a function of a controller) (claim 18); and a speaker

(26) adapted to be worn by the user and connectable to the computer unit (shown in fig. 2B) (claim 19).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 2 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida et al. in view of Anderson (US 5,721,783).

Kishida discloses the claimed invention except an earpiece housing the audio receiver and the speaker.

Anderson teaches an earpiece (10, fig. 1) housing an audio receiver (12, fig. 1) and a speaker (15, fig. 1) and being hidden in the ear canal.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kishida with the earpiece taught by Anderson so that both the audio receiver and the speaker can be hidden in the ear canal for a natural appearance.

10. Claims 3-6 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida in view of Sakurai (US 4,825,384).

The wearable computer system taught by Kishida comprising also a processor (411), a computer memory (412), and a control section 27 which recognizes a voice signal input from microphone 25 by a user (see [0045], [0061] and [0062] for details) except a second audio receiver and a filter that filters audio signals received by the audio receiver that do not originate with the user.

Sakurai teaches a speech recognizer (1, fig. 2) comprising a filter (113) that filters audio signals received by the audio receiver that do not originate with the user by using a second audio receiver (22) as explained in cols. 1-2.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kishida with the recognizer taught by Sakurai for describing recognition functions in detail.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida et al. in view of Abbott et al. (US 2002/0087525 A1).

Kishida discloses the claimed invention except the computer unit including a GPS sensor.

Abbott teaches a wearable computer unit (106, fig. 2) comprising a GPS sensor (164, fig. 2; also see page 2, paragraph [0029]) for providing information of locations.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kishida with the GPS sensor taught by Abbott for providing information of locations.

12. Claims 10-11, 13-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida et al. in view of Sakurai.

Kishida teaches a wearable computer system (figs. 1-2) comprising: a computer unit (1) wearable by a user, a user interface (25 and 26) having an audio-only mode of operation, comprising: a first audio receiver (25) wearable by the user and connectable to the computer unit (shown in fig. 2B) (claim 10); a speaker (26) adapted to be worn by the user and connectable to the computer unit (shown in fig. 2B) (claim 11); a processor (411, fig. 7) and a computer memory (412) (claim 13); wherein the voice command that is received by the computer unit is a natural voice command spoken by the user (see fig. 2B) that blends with the natural phrases and terminology commonly spoken by the user (the microphone may not be removed when not giving a command) (claim 14); an image recorder (602, fig. 15) adapted to be worn by the user and connectable to the computer unit such that the image recorder may capture an image and forward the image to the computer unit for storage (see page 5, paragraph [0075]) (claim 15); and wherein the user display further includes a video display (100, fig. 2B) (claim 17).

Kishida fails to teach a second audio receiver and a filter that filters audio signals received by the audio receiver that do not originate with the user.

Sakurai teaches a speech recognizer (1, fig. 2) comprising a filter (113) that filters audio signals received by the audio receiver that do not originate with the user by using a second audio receiver (22) as explained in cols. 1-2.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kishida with the recognizer taught by Sakurai for describing recognition functions in detail.

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida et al. in view of Sakurai, further in view of Anderson.

Kishida et al. in view of Sakurai discloses the claimed invention except an earpiece housing the audio receiver and the speaker.

Anderson teaches an earpiece (10, fig. 1) housing an audio receiver (12, fig. 1) and a speaker (15, fig. 1) and being hidden in the ear canal.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kishida in view of Sakurai with the earpiece taught by Anderson so that both the audio receiver and the speaker can be hidden in the ear canal for a natural appearance.

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida et al. in view of Sakurai, further in view of Abbott et al.

Kishida et al. in view of Sakurai discloses the claimed invention except the computer unit including a GPS sensor.

Abbott teaches a wearable computer unit (106, fig. 2) comprising a GPS sensor (164, fig. 2; also see page 2, paragraph [0029]) for providing information of locations.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kishida in view of Sakurai with the GPS sensor taught by Abbott for providing information of locations.

15. Claims 23, 27-29, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbott et al. in view of Mills et al. (US 5,012,814).

Abbott teaches a wearable computer system (106, fig. 2) comprising: a computer unit (166) wearable by a user, a first and second audio receivers (a microphone 152 and environment sensor 164, also see paragraphs [0028] and [0029]) wearable by a user and connectable to the computer unit, such that the first audio receiver receives voice signals from the user and provides the voice signals to the computer unit for processing, and the second audio receiver receives ambient audio signals from the user's surroundings and provides the ambient audio signals to the computer unit for processing, the computer unit further comprising: a storage device (172, fig. 2) in which ambient audio information may be stored, a memory (174, fig. 2), and circuitry (170, fig. 2) that, upon receiving a voice command from the user, the audio information stored in the storage device for some period of time will be stored in memory for retrieval at a later time (claims 29, 33-34).

Abbott fails to teach the storage device being a scrolling buffer.

Mills teaches a storage RAM 16 may be used as a scrolling buffer for storing input signals (see col. 6, lines7-25). Upon receiving a TRIGGER command, information

in the scrolling buffer will be stored for later retrieval and new scrolling buffer will be allocated.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Abbott by the scrolling buffer taught by Mills so that useful information is captured and memory space will not be wasted.

A method (claimed in claims 23 and 27-28) of operating the wearable computer system discussed hereinabove, is obviously disclosed in Abbott in view of Mills.

Response to Arguments

16. Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Applicants' arguments may be summarized into the following items:

"Kishida does not disclose a wearable computer system having a user interface having an audio-only mode of operation, as is required by claim 1";

"the CODEC 414 is not even a user interface at all";

"the Examiner failed to identify where the function performed upon execution of the software program instructions are found in Kishida or any other prior art";

"Kishida does not disclose ... the audio filter associated with the personal microphone filters the environmental noise and properly inputs the user's voice";

"the Examiner failed to identify where the function performed upon execution of the software program instructions are found in Kishida or any other prior art";

"Kishida does not disclose the use of a natural voice command that blends with the natural phrases and terminology spoken by the user, as required by claim 18"; and

"Abbott and Mitchell ... neither reference discloses, as required by claim 29, ambient audio information being continuously stored in a scrolling buffer ".

Regarding CODEC 414, it has no longer been considered as a user interface. Regarding the function performed upon execution of the software program instructions, Kishida discloses all the structural limitations of the claimed system, the functional limitations, such as the function performed upon execution of the software program instructions may not exactly the same as claimed, since it has been held that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham,* 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987), MPEP 2114. Regarding the use of a natural voice command that blends with the natural phrases and terminology spoken by the user, as required by claim 18, Kishida discloses a computer system as shown in fig. 2 with voice control features as stated in [0045]. The user of the system is a human being as shown in fig. 2; and the user gives commands and talks with natural phrases and terminology through the same microphone 25. Regarding ambient audio information being continuously stored in a scrolling buffer, this feature is disclosed by Mills as stated in paragraphs hereinabove.

Correspondence

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30 - 16:00.

If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 for regular communications and for After Final communications. There are RightFax numbers and provide the fax sender with an auto-reply fax verifying receipt by the USPTO: Before-Final (703-872-9318) and After-Final (703-872-9319).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

Yean-Hsi Chang
Primary Examiner
Art Unit: 2835
March 24, 2005

YEAN-HSI CHANG
PRIMARY EXAMINER